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May 13, 2002

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VIA HAND DELIVERY

Marlene H. Dortch, Secretary
Federal Communications Commission
236 Massachusetts Avenue, NE, Suite 110
Washington, DC 20002

Re: Notice of *Ex Parte* Presentation in File No. SAT-LOA-19971222-00222, IB Docket No. 02-19

Dear Ms. Dortch:

On May 10, 2002, David Drucker and Leo Mondale of @contact LLC ("@contact") and Todd M. Stansbury of Wiley Rein & Fielding LLP met with Don Abelson, Tom Tycz and Jennifer Gilsenan of the International Bureau of the Federal Communications Commission regarding the above-referenced Ka-band non-geostationary satellite orbit ("NGSO") proceedings. Specifically, @contact made a presentation regarding licensing and sharing criteria in the Ka-band proceeding as outlined in the attachment, a copy of which was provided to each member of the FCC's staff at the meeting.

Please contact this office if there are any questions.

Respectfully submitted,

Todd M. Stansbury

Attachment

cc: Don Abelson, Chief, International Bureau
Tom Tycz, Chief, Satellite Division
Jennifer Gilsenan, Chief, Policy Branch

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Analysis of In-Line Sharing Model in Ka-band NGSO Proceeding

@contact, LLC Presentation to International Bureau

IB Docket No. 02-19

May 10, 2002

Overview

- @contact has analyzed the impact of applying the recently adopted Ku-band NGSO spectrum sharing rules in the Ka-band NGSO proceeding
- The analysis shows that:
  - licensing new Ka-band NGSO systems on an identical basis, in the presence of an existing licensee without an obligation to share spectrum equally during an in-line event, does **not** allow for sufficient service availability to support implementation of 2nd Round NGSO systems
  - if, however, Teledesic bears equally the burden of sharing spectrum during in-line events, then the Ku-band NGSO rules applied "as-is" to the Ka-band would support implementation of competitive 2nd Round NGSO systems

Summary of Ku-band NGSO "In-Line Event" Sharing Rule

- In the Ku-band, an "in-line event" occurs when the Earth-surface based separation angle between satellites of different networks is less than 10°
- Whenever in-line interference events are not a threat, NGSO FSS systems share the entire spectrum
- Prior to launch, each new NGSO FSS operator coordinates in-line events with all other operational systems
  - Coordination methods include satellite diversity, alternate polarization or frequency isolation
  - If a coordination agreement is not achievable prior to launch of a new system, spectrum division is the default sharing mechanism
  - Priority in selecting segments would be based on the date of successful operation of the first satellite of each system

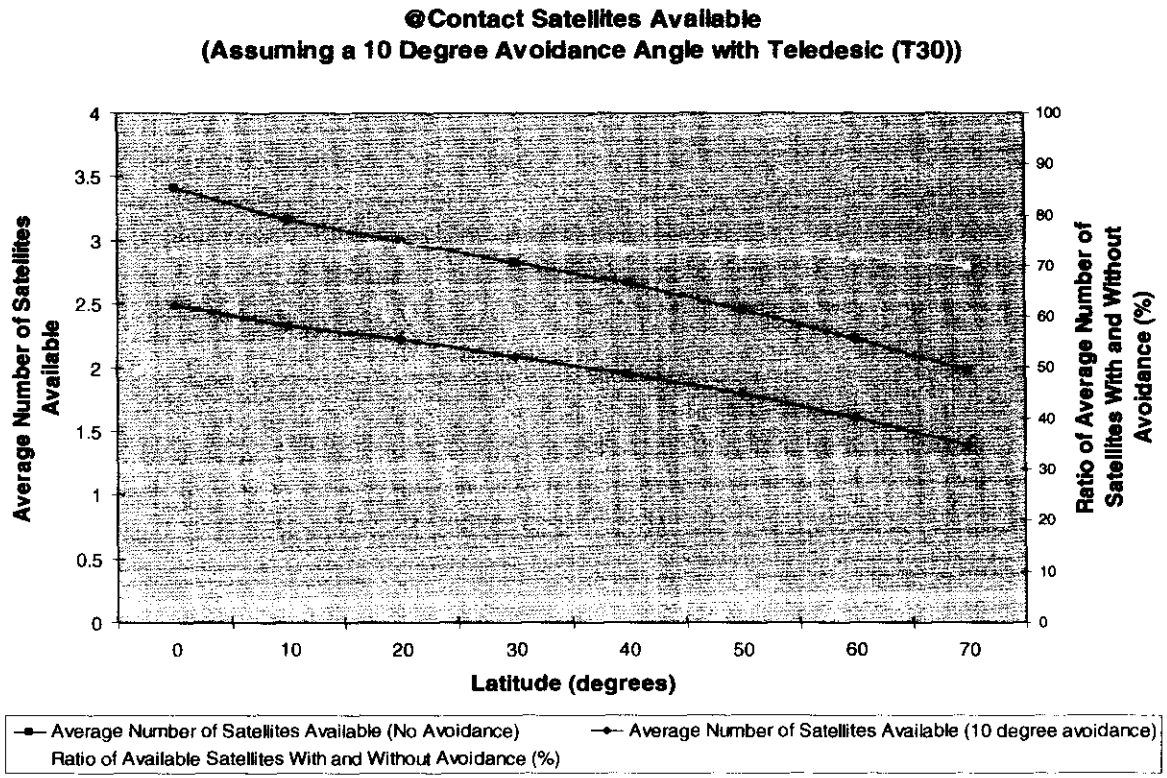
"In-Line Event" Sharing is Acceptable in Ka-band If Applied Equally to All NGSO FSS Systems

- @contact consistently has favored fast Ka-band licensing, prompt introduction of new consumer services and satisfaction of ITU deadlines
- Recently, the FCC has made substantial progress in NGSO-NGSO sharing in the context of the Ku-band proceeding
- Provided the sharing rules are applied equally during in-line events to all parties, including Teledesic, @contact agrees that the avoidance of in-line events adopted for the Ku-band is an acceptable sharing regime to achieve the above objectives in the Ka-band
- As the following analysis demonstrates, however, not requiring Teledesic to adhere to the same sharing obligations would threaten the commercial viability of new NGSO licensees and impede Ka-band competition

Assumptions Used to Calculate Availability If Teledesic Does Not Have An Equal Sharing Obligation

- @contact turns off whenever the earth station based angle to any Teledesic T30 satellite is less than 10°
- @contact elevation angle mask is 20°
- @contact is assumed to have satellite diversity
- Teledesic tracking algorithms not modeled (geometric presence of T30 satellite triggers shutdown, per the Ku-band rules)

@Contact Satellites Available



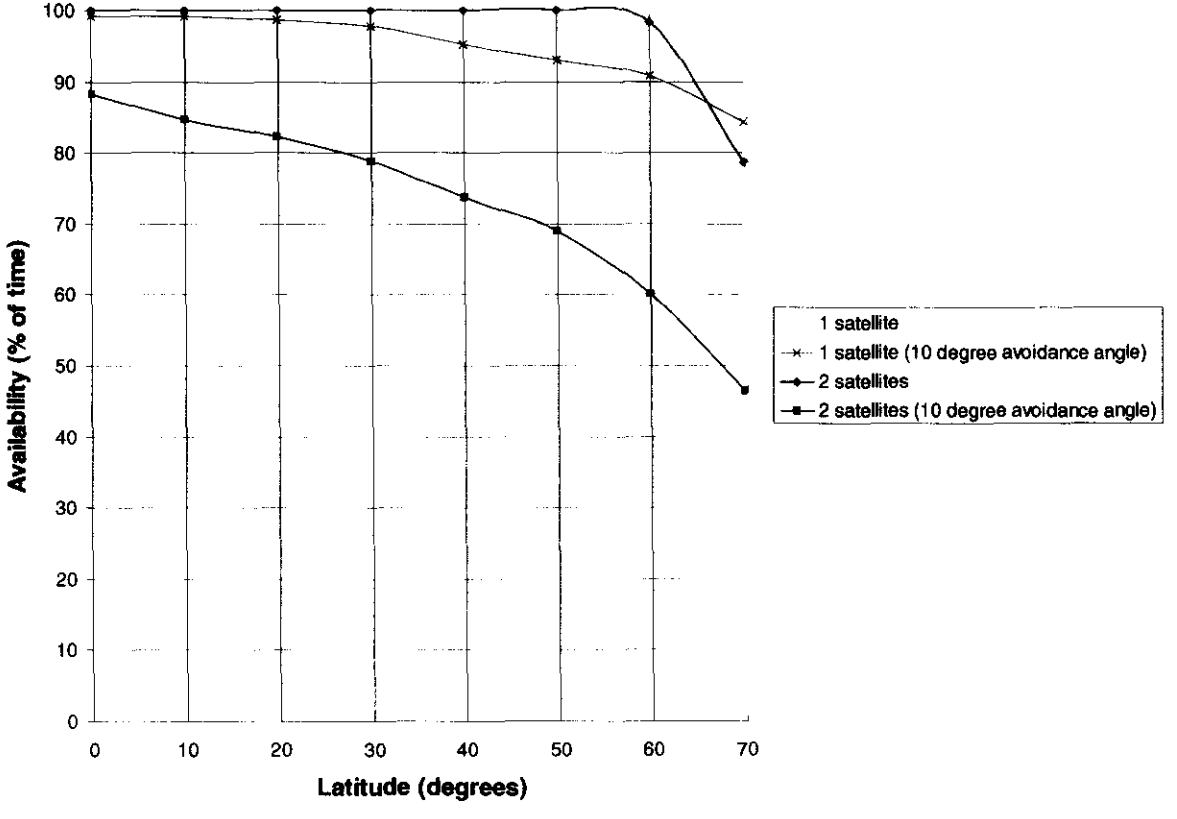
A System-Wide Capacity Penalty Occurs If Teledesic Is Not Subject to Default Segmentation During In-Line Events

- If Teledesic was not required to segment during in-line events, about **30%** of @contact's satellites that could have otherwise been available at all latitudes to provide commercial service would have to be dedicated to avoid service outages during in-line events
- Not requiring Teledesic to segment during in-line events would impose an extremely high cost on @contact to maximize availability

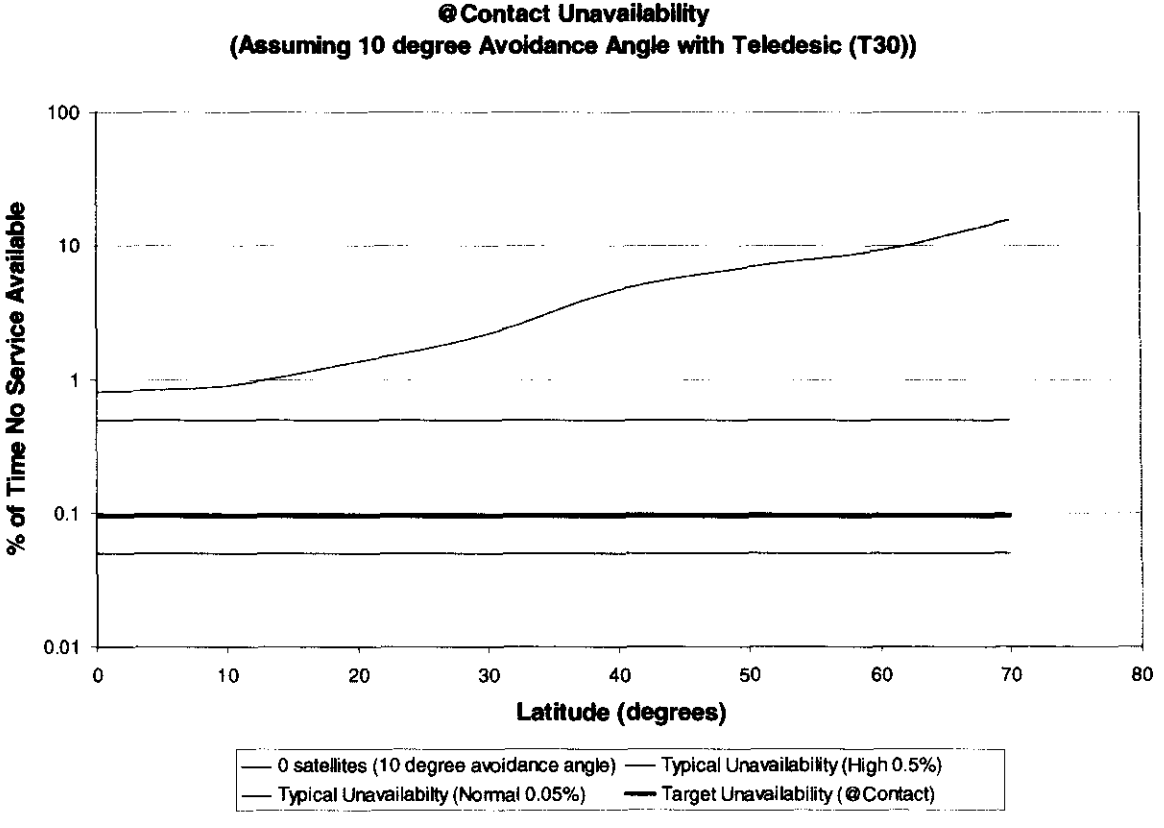
If Teledesic Is Not Subject to Default Segmentation During In-Line Events, Avoidance Would Impose An Unacceptable Penalty on Availability

- Commercial telecom services require near-continuous availability. Terrestrial services routinely achieve 99.99% availability and better. Satellite services typically achieve no worse than 99.5% availability, usually, closer to 99.95%
- The key metric is therefore the percentages of time that at least one satellite can be accessed by a user terminal
- The @contact constellation design was selected in 1997 due to its inherently high single and double satellite coverage over most latitudes
- The impact of avoidance, as would be the case if Teledesic was not required to segment during in-line events, would be disastrous to @contact

@contact Single and Double Satellite Availability



@Contact Loss of Service - Detail



Thus, NGSO Ka-band Competition Can Occur Only if All Licensees are Subject to the Same Sharing Rules:

No obligation for Teledesic to share spectrum equally during an in-line event → Does **not** allow for sufficient service availability to support implementation of 2nd round NGSO systems

Teledesic bears equally the burden of sharing spectrum during in-line events → Ku-band NGSO rules applied "as-is" to Ka-band would support implementation of 2nd round NGSO systems

Teledesic's Equal Sharing of the Coordination Burden During "In-Line Events" is Fair

- Subjecting Teledesic to the same sharing criteria, including segmenting spectrum during in-line events, would not impose an unreasonable technical or commercial burden
- Teledesic is still in the design phase for its system and thus is as well positioned as 2nd Round licensees to mitigate interference using satellite diversity, alternate polarization or frequency isolation
  - FCC has already determined that "if Teledesic were to significantly alter its system design," as evidenced by its modification application, "sharing the burden *equally* with new entrants may not impede its progress in implementing its system" (Ka-Band Reconsideration Order, 2/6/2002)
- As a result, even if subject to an equal sharing burden during in-line events, Teledesic will have access to 100% of the Ka-band spectrum virtually all of the time

Teledesic's Equal Sharing of the Coordination Burden During "In-Line Events" is Fair (cont'd)

- Requiring Teledesic to participate equally in sharing during in-line events is consistent with FCC orders promoting competition
  - The FCC always expected "multiple NGSO FSS systems to operate in the Ka-band" (2002 Ka-Band Recon. Order)
  - To "ensure that more than one system will be able to offer service," the FCC obligated Teledesic to "share the burden of coordination" (1997 Teledesic License and 2002 Ka-Band Recon. Order)
  - Indeed, Teledesic's license was granted subject to the understanding that it did not "preclude use of this band by other NGSO FSS systems" (1997 Teledesic License)
  - More recently, the FCC confirmed that it would "further subdivide the spectrum" licensed to Teledesic if necessary to achieve multiple entry (2002 Ka-Band NPRM)
- Thus, Teledesic's equal sharing of the burden of coordination during in-line events is appropriate and necessary to fulfill the FCC's goal of promoting multiple entry in Ka-band NGSO

Policy and Practical Benefits of Applying In-Line Events Equally to All Ka-band Operators

- Applying in-line events policy equally to Teledesic and 2nd Round systems:
  - avoids undermining the commercial viability of 2nd Round systems
  - will not present technical or commercial difficulties to Teledesic
  - allows for a variety of technologies to come into use
  - allows for vigorous competition among numerous service providers
  - encourages each licensee to accept interference levels that optimize performance at the least cost (as opposed to striving for negligible levels of interference at a cost so high as to render a system unaffordable)
  - maximizes spectrum efficiency
  - is expeditious

Requested Course of Action

- Promptly adopt Report & Order for Ka-band NGSO, based directly on Ku-band sharing rules, and grant all applications seeking primary spectrum
- Declare that Teledesic's share of the coordination burden includes default obligation to divide spectrum equally during in-line events